S E R V I C E   N O T E

SUPERSEDES: NONE

37717C PDH/SDH/Jitter Test Set

Serial Numbers: GB00000000/GB99999999

Options: All

Build Status: 1:14 to 2:64

Instrument Fails to Download Firmware via Floppy disk

To be Performed by: Qualified Service Personnel

Parts Required:

Description	Part Number	Quantity	Build StatusAffected
Screened disk-drive Kit	37717-60190	1	1:14 to 1:31 (inc)
Insulated Wire		0.25 Metre	2:41 to 2:64(inc)

Situation

Problems may be encountered when downloading firmware via disks on 37717C units with Build Status Number in the above range (the instrument Build Status is recorded on a label attached to the rear panel). Typically a FATAL ERROR may occur during the downloading process.

Continued

DATE: March 1997

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

MODIFICATION RECOMMENDED

ACTION CATEGORY:	IMMEDIATELY ON SPECIFIED FAILURE AGREEABLE TIME	STANDARDS: LABOR Hours			
LOCATION CATEGORY:	CUSTOMER INSTALLABLE ON-SITE SERVICE CENTER	SERVICE INVENTORY:	RETURN SCRAP SEE TEXT	USED PARTS:	RETURN SCRAP SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	AGILENT RESPONSIBLE UNTIL: March 1999			
AUTHOR: DBG	ENTITY: E610	ADDITIONAL INFORMATION:			

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These problems are due to insufficient RFI screening on the new version of disk drive introduced at BS2:23. Improved screening was introduced into production units at BS2.41.

A wire-link modification to the processor PCB to improve the stability of the disk-drive supply voltage should also be done on these units. This modification was introduced at BS 2:65.

Solution/Action

If any 37717C unit with Build Status between 1:14 and 2:64 (inclusive) is encountered, carry out the wire-link modification to the processor PCB as described below.

In addition, if the Build Status is between 1:14 and 1:31 (inclusive), order the special Screened disk-drive Assembly Kit and fit this by following the procedure below. This specially screened disk drive is more resistant to PSU generated RFI and will prevent the corruption of data which causes the downloading problem to occur.

Removing the Processor (CPU) Module

1. Switch off the 37717C and DISCONNECT THE POWER CORD.

2. Remove the rear panel feet.

3. If Optical Modules are fitted, unscrew the optical shield from the input and output connectors.

4. Withdraw the outer cabinet sleeve back and out of the instrument.

5. Remove the clamp screws on the top and bottom right-hand side of the chassis which secure the CPU Module (see Figure 1).

6. Withdraw the CPU module from the instrument.

CAUTION

Never use a screwdriver or other sharp implement to lever the module as circuit tracks may be cut or the module metalwork irrepairably damaged.

Adding the Wire-Link

1. Remove the processor module as described above.

2. Remove L1 and discard - see Figure 2..

3. Solder a wire link on the topside of the board as shown in Figure 2.

4. Using an epoxy resin glue, support the wire link at the points shown in Figure 2.

The wire link modification is now complete.

Fitting the New Disk Drive Assembly.

If the Build Status is in the affected range, use the following procedure to remove the suspect disk-drive assembly and fit the new Disk-Drive Assembly from the kit.

The old disk-drive is replaced together with the processor front panel as this makes for easier dismantling and assembly procedures and removes the requirement for precision alignment.

Dismantling the Processor.

1. Unscrew the four posidrive screws which secure the Disk Drive with it's metal shield to the disk-drive supports on the CPU Board (Figure 3 item A).

2. Unscrew the nut which secures the Disk Drive to the CPU module front panel (Figure 3 item B).

3. Unclip the GPIB and RS-232 ribbon cables from their sockets on the CPU board. Feed the GPIB ribbon cable out through the slot in the disk drive metal shield.

4. Unclip the disk-drive ribbon cable from it's socket on the CPU board and place the disk-drive and metal shield to one side in an anti-static bag.

5. Unscrew the two nuts which secure the PARALLEL Interface Connector to the module Front Panel (Figure 3 item C).

6. Using a long posidrive screwdriver, unscrew the two screws which secure the module Front Panel to the CPU Board (Figure 3 item D).

7. Remove the module Front Panel and place to one side.

8. Unscrew the nuts (Figure 3 item E) securing the four disk-drive supports to the CPU Board.

Discard these supports (Figure 3 items F and G).

9. Fit the two new supports from the kit in the rear two support holes only (Figure 3 item G).

Fitting the New Disk-Drive/Front Panel

1. Clip the GPIB ribbon cable from the new Front Panel into it's socket on the CPU board.

2. Clip the new disk-drive ribbon cable into it's socket on the CPU board.

3. Align the CPU Board with the holes in the new front panel and secure using the original two screws.

4. Clip the RS232 ribbon cable from the new Front Panel into J2 socket on the CPU board.

5. Secure the new Disk Drive to the new rear disk-drive supports on the CPU Board using two of the original screws.

6. Replace the two nuts which secure the PARALLEL Interface Connector to the new Front Panel.

Fitting the CPU Module and Re-assembling the Instrument.

1. Replace the CPU module back into the instrument.

VERY IMPORTANT NOTE

To prevent removal of, or damage to the metal RFI STRIP on the module next to the CPU, you MUST use special tool part number 03776-00016 or a thin LOW-STATIC plastic or fibre card (200mm x 135mm x 0.5mm) when inserting the CPU module back into the instrument. Place this card against the RFI Strip, then slide the CPU Module back into the instrument. Push the CPU Module fully home, then pull out the card - see Figure 1. Severe damage can result if an RFI Strip is dislodged and falls inside the instrument. Always ensure that RFI strips are securely in position and unbroken.

2. Replace the outer cabinet sleeve, optical module shields and rear panel feet - this is a reversal of the removal procedure.

Testing

1. Switch on the instrument and check for a sensible display.

2. Carry out the procedure for downloading the new firmware described in Service Note 37717C-01. Ensure the new firmware upgrade has completed successfully.

3. Obtain a pass on all instrument Selftests.
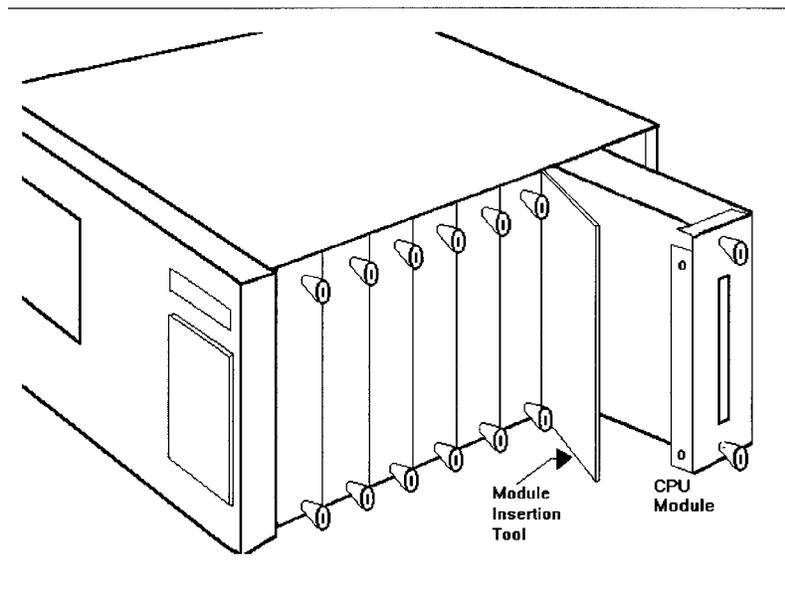
The instrument is now ready for use.

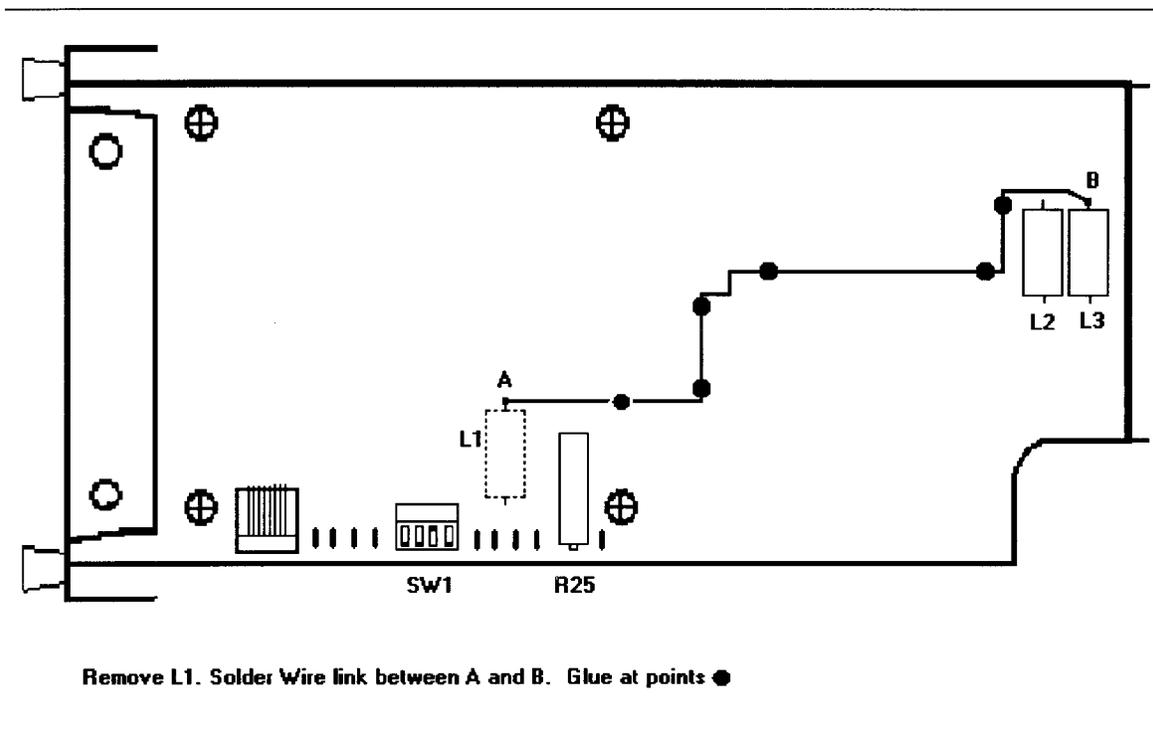**Figure 1 Position of Processor Module and Insertion Tool**

Remove L1. Solder Wire link between A and B. Glue at points ●
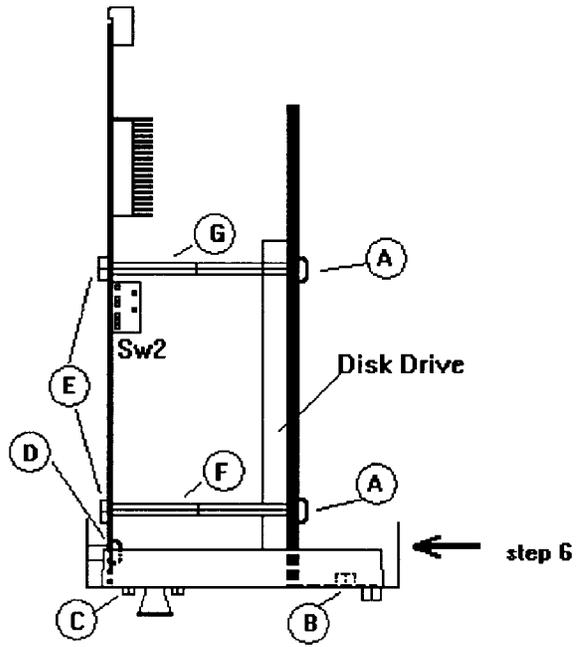
Figure 2 - Showing the Wire-Link modification to the Processor Board

Figure 3 Processor Module (viewed from top)